

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: October 28, 2000, 12:38:36 ; Search time 46.02 Seconds
(without alignments)
98.822 Million cell updates/sec

Title: US-09-157-984-1

Sequence: 1 KANDELHNGEXVCDSEHWM.....RFRINAAVCYLSNSWRH 133

Scoring table: BLOSUM62
Gapopen 10.0, Gapext 0.5

Number of hits satisfying chosen parameters: 268485

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database:

A_Geneseq_36:*

1: /cgnl_8/gcgdata/geneseq/geneseq/AA1980.DAT.*
2: /cgnl_8/gcgdata/geneseq/geneseq/AA1981.DAT.*
3: /cgnl_8/gcgdata/geneseq/geneseq/AA1982.DAT.*
4: /cgnl_8/gcgdata/geneseq/geneseq/AA1983.DAT.*
5: /cgnl_8/gcgdata/geneseq/geneseq/AA1984.DAT.*
6: /cgnl_8/gcgdata/geneseq/geneseq/AA1985.DAT.*
7: /cgnl_8/gcgdata/geneseq/geneseq/AA1986.DAT.*
8: /cgnl_8/gcgdata/geneseq/geneseq/AA1987.DAT.*
9: /cgnl_8/gcgdata/geneseq/geneseq/AA1988.DAT.*
10: /cgnl_8/gcgdata/geneseq/geneseq/AA1989.DAT.*
11: /cgnl_8/gcgdata/geneseq/geneseq/AA1990.DAT.*
12: /cgnl_8/gcgdata/geneseq/geneseq/AA1991.DAT.*
13: /cgnl_8/gcgdata/geneseq/geneseq/AA1992.DAT.*
14: /cgnl_8/gcgdata/geneseq/geneseq/AA1993.DAT.*
15: /cgnl_8/gcgdata/geneseq/geneseq/AA1994.DAT.*
16: /cgnl_8/gcgdata/geneseq/geneseq/AA1995.DAT.*
17: /cgnl_8/gcgdata/geneseq/geneseq/AA1996.DAT.*
18: /cgnl_8/gcgdata/geneseq/geneseq/AA1997.DAT.*
19: /cgnl_8/gcgdata/geneseq/geneseq/AA1998.DAT.*
20: /cgnl_8/gcgdata/geneseq/geneseq/AA2000.DAT.*
21: /cgnl_8/gcgdata/geneseq/geneseq/AA2000.DAT.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	429	58.7	286	16	R85441
2	383.5	52.5	120	13	R21868
3	379.5	51.9	118	13	R29493
4	379.5	51.9	120	13	R21863
5	379.5	51.9	120	19	W48887
6	379.5	51.9	132	13	R21862
7	379.5	51.9	307	5	P40036
8	379.5	51.9	307	5	P40039
9	379.5	51.9	307	14	R45240
10	379.5	51.9	120	13	R21864
11	376.5	51.5	119	10	P90133
12	376.5	51.5	120	13	R21873

13	372.5	51.0	120	13	R21866
14	369.5	50.5	120	13	R21870
15	368.5	50.4	118	10	P31034
16	368.5	50.4	119	5	P40040
17	368.5	50.4	119	12	R13064
18	368.5	50.4	119	16	R77420
19	368.5	50.4	120	13	R21869
20	368.5	50.4	120	20	W81117
21	368.5	50.4	124	13	R21851
22	368.5	50.4	129	14	R37539
23	368.5	50.4	129	18	W24145
24	368.5	50.4	154	13	R22751
25	368.5	50.4	222	21	W90884
26	368.5	50.4	241	12	R13063
27	368.5	50.4	241	12	R11474
28	368.5	50.4	241	12	R13858
29	368.5	50.4	241	12	R13886
30	368.5	50.4	241	16	R77419
31	368.5	50.4	241	16	R66688
32	368.5	50.4	241	18	W25237
33	368.5	50.4	241	19	W48886
34	368.5	50.4	241	20	Y07303
35	368.5	50.4	245	5	P40038
36	368.5	50.4	261	10	P91299
37	368.5	50.4	262	7	P61033
38	368.5	50.4	307	14	R45241
39	368.5	50.4	307	19	W69725
40	367.5	50.3	120	20	W81120
41	367.5	50.3	307	14	R37799
42	367	50.2	121	13	R21872
43	365.5	50.0	120	15	R54084
44	363.5	49.7	118	13	R21874
45	363.5	49.7	262	12	R11740

ALIGNMENTS

RESULT 1	
R85441	
ID	R85441 standard; Protein: 286 AA.
XX	
AC	R85441;
XX	
DT	29-FEB-1996 (first entry)
XX	
DE	Neurotrophin-6.
XX	
KW	Neurotrophin-6; neurotrophic factor; Alzheimer disease; Parkinson disease; swordfish.
XX	
OS	Xiphophorus helleri.
XX	
FH	Key
FT	Peptide
FT	Location/Qualifiers
FT	1..19
FT	/label= sig_peptide
FT	20..142
FT	/label= Pro-peptide
FT	63..66
FT	/label= Multi-basic_motif
FT	139..142
FT	/label= Multi-basic_motif
FT	142..143
FT	/label= Multi-basic_motif
FT	143..286
FT	/label= Mat_protein
XX	
PN	W09526363-A1.
XX	
PD	05-OCT-1995.
XX	
PF	28-MAR-1995;
XX	
PR	95MO-EP01157.
	94EP-0104971.
	29-MAR-1994;

Chimeric neurotrop
Chimeric neurotrop
Human nerve growth
Sequence encoded b
Human NGF HindIII-
Nerve growth facto
Chimeric neurotrop
Nerve growth facto
Chimeric neurotrop
Recombinant beta-N
Human growth hormo
Human growth hormo
Human prongf prote
Human NGF Smat-Apa
Human nerve growth
Human nerve growth
Human nerve growth
NGF with pro-regio
Human nerve growth
Human nerve growth
Human nerve growth
Human prepro-neve
Human nerve growth
Sequence encoded b
Human nerve growth
Human beta-nerve g
Human pre-pro nerv
Human beta-nerve g
Nerve growth facto
Human NGF. Homo s
Chimeric neurotrop
Nerve growth facto
Chimeric neurotrop
Human growth hormo

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XX
PA (PLAC) MAX PLANCK GES FOERDERUNG WISSENSCHAFTEN.
XX
PI Goetz RG, Lottspeich F, Scharl M, Thoenen H;
XX
-XX WPI; 1995-351295/45.
DR N-PSDB; T05625.
XX
PT DNA encoding neurotrophin-6 - useful to diagnose and treat disorders
PI of the nervous system e.g. Alzheimer's, Parkinson's disease, etc
XX
PS Example 4; Page 50-52; 77pp; English.
XX
CC Sordfish neurotrophin-6 (R85441) is a new member of the
CC neurotrophin family useful for diagnosing and treating disorders
CC of the nervous system. Recombinant neurotrophin-6 can be
CC produced in prokaryotic or eukaryotic host cells using a cDNA
CC clone (T05625) isolated from a swordfish brain cDNA library.
XX
SQ Sequence 286 AA:
Query Match 58.7%; Score 429; DB 16; Length 286;
Best Local Similarity 63.0%; Pred. No. 5e-41;
Matches 85; Conservative 11; Mismatches 27; Indels 12; Gaps 4;
OY 6 LRHGEYSVCDSEHWNGLQATDLRGNEVTYLPHYRINNVKQKMEYETTCRVSKP--- 62
DB 149 hmgeysvcdsintw-nktracdmgsnevtlyshvtnmkvkkqlyetctcr--splhr 205
OY 63 -----IGAPKPGQ-GVSGVAGTSSCRGIDNEHWNSTYCTNVHFPVRLTSYKNOIAMRFI 116
DB 206 ssgivlygsgsggrgqgsktgnsgcrgldsrwnshcttdlyvsaltvfkqqtawrfi 265
OY 117 RINACVCTLSRNSW 131
DB 266 rlnacvcvlsrns 280
RESULT 2
R21868
ID R21868 standard; Protein; 120 AA.
XX
AC R21868;
XX
DT 10-JUN-1992 (first entry)
XX
DE Chimeric neurotrophic factor S6.
XX
KW Human BDNF; brain derived neurotrophic factor; NGF;
XX neurotrophic growth factor; Alzheimer's disease; ageing;
XX peripheral neuropathies; Parkinson's disease; Huntington's chorea;
XX amyotrophic lateral sclerosis; nervous system disorders.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Peptide 1..50
FT /note= "mouse NGF residues 1-50"
FT Peptide 51..58
FT /note= "human BDNF residues 51-58"
FT Peptide 59..120
FT /note= "mouse NGF residues 59-120"
XX
XX WO9202620-A.
XX
XX 20-FEB-1992.
XX
XX 07-AUG-1991; 91WO-US05610.
XX
XX 08-AUG-1990; 90US-0564929.
XX
XX (REGG-) REGENERON PHARM INC.

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XX
XX Shooter EM, Suter U, Ip N, Squinto SP, Furth ME, Lindsay RM;
XX Yancopoulos GD;
XX
XX WPI; 1992-080074/10.
XX
XX New chimeric neurotrophic factors - useful in treating nervous
XX conditions caused by trauma, surgery, ischaemia, infection,
XX metabolic diseases, nutritional deficiency, etc.
XX
PS Claim 29; Fig 10; 114pp; English.
XX
XX The sequence is that of a chimeric neurotrophic factor (NF) S6 which
XX comprises the mouse neurotrophic growth factor (NGF) residues 1-50,
XX human brain derived growth factor (hBNGF) residues 51-58 and mouse NGF
XX residues 59-120. It may provide the activity of 2 NFs in a single mol.
XX or may serve as a superagonist of an endogenous NF thereby enabling an
XX increased biological response at lower doses. It may also be useful in
XX targeting an active cpd. to cells responsive to NF. The design of
XX chimeric NFs, such as S6, which retain specific biological activity
XX but which are directed to a subset of factor-responsive cells may
XX enable treatment of neurological disorders but avoid the complications
XX of more widespread activity of parent mols. It may be used in the
XX treatment to eliminate diseased cells, e.g. virus infected cells or
XX tumours of nervous system origin. It may also be used to treat patients
XX whose nervous system has been damaged by trauma, surgery, ischaemia,
XX infection (e.g. polio or AIDS), metabolic disease, nutritional
XX deficiency, malignancy or toxic agents. Also to treat e.g. Alzheimer's
XX disease, ageing, peripheral neuropathies, Parkinson's disease,
XX Huntington's chorea or amyotrophic lateral sclerosis. S6 or antibodies
XX to it can also be used in the diagnosis and study of nervous system
XX disorders. See also R21851-R21874 and Q22080-Q22131.
XX
SQ Sequence 120 AA:
Query Match 52.5%; Score 383.5; DB 13; Length 120;
Best Local Similarity 57.1%; Pred. No. 2.5e-36;
Matches 72; Conservative 13; Mismatches 26; Indels 15; Gaps 1;
OY 7 HRGEYSVCDSEHWNGLQATDLRGNEVTYLPHYRINNVKQKMEYETTCRVSKP 66
DB 8 hmgeysvcdsvwvgdtdttdlkgykevtvlaevnmsvfrgfyetckcpasnpv--- 64
OY 67 KPGQGVSGVAKGTSSCRGIDNEHWNSTYCTNVHFPVRLTSYKNOIAMRFIRINACVCL 126
DB 65 -----esgcrgldskhwnstcttthfvtkaltdekgawffridtaccvcl 112
OY 127 SRNSWR 132
DB 113 srketr 118
RESULT 3
R29493
ID R29493 standard; Protein; 118 AA.
XX
XX R29493;
XX
AC R29493;
XX
DT 22-APR-1993 (first entry)
XX
DE NGF, mouse.
XX
XX Neurotrophin; NF; nerve growth factor; NGF;
XX brain-derived neurotrophic factor; BDNF.
XX
XX Mus musculus.
XX
XX WO9220365-A.
XX
XX 26-NOV-1992.
XX
XX 20-MAY-1992; 92WO-US04266.

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XX 21-MAY-1991; 91US-0703450.
PR 12-JUL-1991; 91US-0729253.
PR 23-JUL-1991; 91US-0734422.
PR 28-AUG-1991; 91US-0751356.
PR 20-SEP-1991; 91US-0762674.
PR 14-NOV-1991; 91US-0791924.
XX (REG-) REGENERON PHARM INC.
XX Hallbook F, Ibanez Moliner CF, Persson HB, Yancopoulos GD;
XX WPI; 1992-415468/50.
XX Use of neurotrophin-4 for promoting growth and survival of nerve
XX cells - useful in treating neurological, fertility and
XX immunological disorders and in diagnosis
XX Disclosure: Page 105-106 + Fig 4B; 180pp; English.
XX A comparison of the mature NT-4 protein (Xenopus) to the mature
XX NGF, BDNF, and NT-3 proteins from mouse revealed 51%, 60% and 58%
XX amino acid identity respectively. See sequences R29491 and
XX R29493-95.
XX Sequence 118 AA;
SQ
Query Match 51.9%; Score 379.5; DB 13; Length 118;
Best Local Similarity 56.3%; Pred. No. 6.9e-36;
Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;
QY 7 HRGEYSVCDSEHVGNTQATDLRGNEVTVLPHVRINNVMKOMEYETTCRVSKPIGAP 66
DB 8 hmgfsvcdsvswwgdttatdtkgkvtvlaevninsvtfyftckcrasnpv--- 64
QY 67 KPGGVSQVKAAGTSSCRGIDNEHNSYCTNWHTFVRLTSTYKNOIAMRFRINAAACVYL 126
DB 65 -----esgrgidskhmsycctthtfvkaltdexgaawrfirdtaecvyl 112
QY 127 SRNSMR 132
DB 113 strkatr 118
RESULT 4
R21863 standard; Protein; 120 AA.
R21863;
10-JUN-1992 (first entry)
Chimeric neurotrophic factor S1.
Human BDNF; brain derived neurotrophic factor; NGF;
neurotrophic growth factor; Alzheimer's disease; ageing;
peripheral neuropathies; Parkinson's disease; Huntington's chorea;
amyotrophic lateral sclerosis; nervous system disorders.
XX Homo sapiens.
XX Key Location/Qualifiers
XX FT 1..2
XX FT /note= "mouse NGF residues 1-2"
XX FT Peptide 3..9
XX FT /note= "human BDNF residues 1-7"
XX FT Peptide 20..120
XX FT /note= "mouse NGF residues 10-120"
XX MO9202620-A.
XX PD 20-FEB-1992.

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XX 07-AUG-1991; 91KO-US05610.
XX 08-AUG-1990; 90US-0564929.
XX (REG-) REGENERON PHARM INC.
XX Shooter EM, Suter U, Ip N, Squinto SP, Furth ME, Lindsay RM;
XX Yancopoulos GL;
XX WPI; 1992-080074/10.
XX New chimeric neurotrophic factors - useful in treating nervous
XX conditions caused by trauma, surgery, ischaemia, infection,
XX metabolic diseases, nutritional deficiency, etc.
XX Claim 24; Fig 10; 114pp; English.
XX The sequence is that of a chimeric neurotrophic factor (NF) S1 which
XX comprises the mouse neurotrophic growth factor (NGF) residues 1-2,
XX human brain derived growth factor (hBNF) residues 1-7 and mouse NGF
XX residues 10-120. It may provide the activity of 2 NFs in a single mol.
XX or may serve as a superagonist of an endogenous NF thereby enabling an
XX increased biological response at lower doses. It may also be useful in
XX targeting an active cpd to cells responsive to NF. The design of
XX chimeric NFs, such as S1, which retain specific biological activity
XX but which are directed to a subset of factor-responsive cells may
XX enable treatment of neurological disorders but avoid the complications
XX of more widespread activity of parent mols. It may be used in the
XX treatment to eliminate diseased cells, e.g. virus infected cells or
XX tumours of nervous system origin. It may also be used to treat patients
XX whose nervous system has been damaged by trauma, surgery, ischaemia,
XX infection (e.g. polio or AIDS), metabolic disease, nutritional
XX deficiency, malignancy or toxic agents. Also to treat e.g. Alzheimer's
XX disease, ageing, peripheral neuropathies, Parkinson's disease,
XX Huntington's chorea or amyotrophic lateral sclerosis. S1 or antibodies
XX to it can also be used in the diagnosis and study of nervous system
XX disorders. See also R21851-R21874 and Q22080-Q22131.
XX Sequence 120 AA;
SQ
Query Match 51.9%; Score 379.5; DB 13; Length 120;
Best Local Similarity 55.4%; Pred. No. 7.1e-36;
Matches 72; Conservative 15; Mismatches 28; Indels 15; Gaps 1;
QY 3 NDFLHGEYSVCDSEHVGNTQATDLRGNEVTVLPHVRINNVMKOMEYETTCRVSKP 62
DB 4 sdparrefsfvcdsvswwgdttatdtkgkvtvlaevninsvtfyftckcrasnp 63
QY 63 IGAPKPGGVSQVKAAGTSSCRGIDNEHNSYCTNWHTFVRLTSTYKNOIAMRFRINAAAC 122
DB 64 v-----esgrgidskhmsycctthtfvkaltdexgaawrfirdtaec 108
QY 123 VCYLRSNSMR 132
DB 109 vcylstrkatr 118
RESULT 5
W48887 standard; Protein; 120 AA.
W48887;
XX 12-OCT-1998 (first entry)
XX Mouse nerve growth factor.
XX Neurotrophin; nerve growth factor; NGF; mouse; purification;
XX hydrophobic interaction chromatography.
XX Mus sp.

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XX Key Location/Qualifiers
FH 58..68
FT /note= "conserved Cys-containing region involved in
FT Cys knot motif"
FT 108..110
FT /note= "conserved Cys-containing region involved in
FT Cys knot motif"
XX Region
XX MO9821234-A2.
XX 22-MAY-1998.
XX 14-NOV-1997; 97WO-US21068.
XX 29-MAY-1997; 97US-0047855.
XX 15-NOV-1996; 96US-0030838.
XX (GETH ) GENENTECH INC.
XX Beck JT, Burton LE, Schmelzer CH;
XX WPI: 1998-322333/28.
XX Isolation of neurotrophin(s) from, e.g. mis-folded or glycosylated
XX variant(s) - using hydrophobic interaction chromatography,
XX optionally in combination with high performance cation exchange
XX chromatography
XX Disclosure: Page 36; 59pp; English.
XX This polypeptide comprises mouse nerve growth factor (NGF) mature
XX polypeptide. Methods are provided for large-scale purification of
XX neurotrophins, including mature NGF, suitable for clinical use. A
XX claimed method comprises: (1) separating the neurotrophin from the
XX other proteins using a hydrophobic interaction chromatography resin
XX (HICR), and optionally (2) separating the neurotrophin from a
XX chemical variant by high performance cation exchange chromatography
XX (HPEC). The processes can also be used for purification of e.g.
XX human NGF (see W48886), brain-derived neurotrophic factor (see
XX W48888), neurotrophin-4/5 (see W48890) and neurotrophin-3 (see
XX W48889). The processes allow separation of neurotrophins from
XX various undesirable misprocessed, misfolded, size, glycosylated or
XX charge forms. They allow selective separation from variants and
XX other molecules, and from other polypeptides with high pI. The
XX processes are applicable to starting materials from various
XX sources, including fermentation broths or lysed bacterial or
XX mammalian cells.
XX Sequence 120 AA:
XX
XX Query Match 51.9%; Score 379.5; DB 19; Length 120;
XX Best Local Similarity 56.3%; Pred. No. 7.1e-36;
XX Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;
XX
XX 7 HRGEYVCSDEHMGVNLQATDLRGNEVTVLPVRRINNVYKQMFYETTCRVSKPIGAP 66
XX | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : |
XX 8 hmgfsvcdsvwvqgkltatldkqkvevrlaevnlnsvfrityfctckrasnpv--- 64
XX | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : |
XX 67 KPGQGSVGAAGTSSCGINEHNSYCTNVTFRALTSYKNOJAMFIRINACVCL 126
XX | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : |
XX 65 -----esgcrgidskhwnsycttthtvtkalttdexqaavrfidtdacvcl 112
XX | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : |
XX 127 SRNSWR 132
XX | : : : : : | : : : : : | : : : : : | : : : : : | : : : : : |
XX 113 srkatr 118
XX
XX RESULT 6
XX R21862
XX ID R21862 standard; Protein; 132 AA.

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AC R21862;
XX 10-JUN-1992 (first entry)
XX Chimeric neurotrophic factor NML.
XX
XX Human BDNF; brain derived neurotrophic factor; NGF;
XX neurotrophic growth factor; Alzheimer's disease; ageing;
XX peripheral neuropathies; Parkinson's disease; Huntington's chorea;
XX amyotrophic lateral sclerosis; nervous system disorders.
XX Homo sapiens.
XX
XX Key Location/Qualifiers
XX Peptide 1..4
XX /note= "mouse NGF preprosequence"
XX Peptide 5..122
XX /note= "mouse NGF residues 1-118"
XX Peptide 123..132
XX /note= "10 amino acid antigenic peptide fragment
XX of human myc protein"
XX
XX WO9202620-A.
XX 20-FEB-1992.
XX 07-AUG-1991; 91WO-US05610.
XX 08-AUG-1990; 90US-0564929.
XX (REGG-) REGENERON PHARM INC.
XX Shooter EM, Suter U, Ip N, Squinto SP, Furch ME, Lindsay RM,
XX Yancopoulos GD:
XX WPI: 1992-080074/10.
XX New chimeric neurotrophic factors - useful in treating nervous
XX conditions caused by trauma, surgery, ischemia, infection,
XX metabolic diseases, nutritional deficiency, etc.
XX Claim 46; Fig 5; 114pp; English.
XX
XX The sequence is that of a chimeric neurotrophic factor (NF) NML which
XX comprises the preprosequence of mouse neurotrophic growth factor (NGF),
XX residues 1-118 of mouse NGF and a 10 amino acid antigenic peptide
XX fragment of human myc protein. It may provide the activity of 2 Nfs
XX in a single mol. or may serve as a superagonist of an endogenous NF
XX thereby enabling an increased biological response at lower doses. It
XX may also be useful in targeting an active cpd. to cells responsive to
XX NF. The design of chimeric Nfs, such as NML, which retain specific
XX biological activity but which are directed to a subset of factor-
XX responsive cells may enable treatment of neurological disorders but
XX avoid the complications of more widespread activity of parent mols.
XX It may be used in the treatment to eliminate diseased cells, e.g.
XX virus infected cells or tumours of nervous system origin. It may also
XX be used to treat patients whose nervous system has been damaged by
XX trauma, surgery, ischemia, infection (e.g. polio or AIDS), metabolic
XX disease, nutritional deficiency, malignancy or toxic agents. Also to
XX treat e.g. Alzheimer's disease, ageing, peripheral neuropathies,
XX Parkinson's disease, Huntington's chorea or amyotrophic lateral
XX sclerosis. NML or antibodies to it can also be used in the diagnosis
XX and study of nervous system disorders. See also R21851-R21874 and
XX Q22080-Q22131.
XX
XX Sequence 132 AA:
XX
XX Query Match 51.9%; Score 379.5; DB 13; Length 132;
XX Best Local Similarity 56.3%; Pred. No. 8e-36;
XX Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;
XX
XX 7 HRGEYVCSDEHMGVNLQATDLRGNEVTVLPVRRINNVYKQMFYETTCRVSKPIGAP 66

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Db 12 hmgefsvcdsvwvwdkltatdtkgkvevylaevnlnsvfryftekcrasnpv--- 68
 QY 67 KPGQGVSGVAKAGTSSCRGIDNEHWNSTCTVHTFVRALTSYKNQIAMRFIRINACVCVL 126
 Db 69 -----esgcrjldskhwnsycctthfvtkaltdeqaafrifridtacvcl 116
 QY 127 SRNSWR 132
 Db 117 srkatr 122

RESULT 7

P40036 standard; Protein; 307 AA.

P40036;

25-JAN-1992 (first entry)

Sequence encoded by the human beta-nerve growth factor (NGF) gene and flanking regions on phage lambda h-beta-N8.

Nerve damage; therapy.

Homo sapiens.

EP121338-A.

10-OCT-1984.

02-MAR-1984; 84EP-0301377.

03-MAR-1983; 83US-0471962.

(GETH) GENENTECH INC.

Gray AM, Ullrich A;

WPI; 1984-251909/41.

N-PSDB; N40031.

Human beta-nerve growth factor free from other proteins - obtd.

by recombinant DNA techniques for treating nerve damage

Example; Fig 2; 42pp; English.

The inventors claim human beta-nerve growth factor (NGF) free from other proteins of human origin. Also claimed are the DNA sequence encoding human beta-NGF operably linked with a DNA sequence capable of effecting its expression in a recombinant host cell; a replicable expression vector contg. the DNA; and host cells transformed with the vector. The plasmid claimed is plasmid ph-beta-NGF trip 1. Using the plasmid, larger amounts of pure beta-NGF are obtainable than by extrn. of natural materials, see e.g. EP--2139.

Sequence 307 AA;

Query Match 51.9%; Score 379.5; DB 5; Length 307;

Best Local Similarity 56.3%; Pred. No. 2.4e-35; Mismatches 26; Indels 15; Gaps 1;

Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;

7 HRGEYSVCDSEHWNQNLQATDLRGNEVTVLPHVRINNWKOMFETTCRYSKPIGAP 66

195 hmgefsvcdsvwvwdkltatdtkgkvevylaevnlnsvfryftekcrasnpv--- 251

67 KPGQGVSGVAKAGTSSCRGIDNEHWNSTCTVHTFVRALTSYKNQIAMRFIRINACVCVL 126

252 -----esgcrjldskhwnsycctthfvtkaltdeqaafrifridtacvcl 299

127 SRNSWR 132

117 srkatr 122

Db 300 srkatr 305

RESULT 8

P40039 standard; Protein; 307 AA.

P40039;

25-JAN-1992 (first entry)

Sequence encoded by human prepro-beta-nerve growth factor (NGF) gene.

Nerve damage; therapy.

Homo sapiens.

Key Location/Qualifiers

Peptide 1..187

Protein 188..307

EP121338-A.

10-OCT-1984.

02-MAR-1984; 84EP-0301377.

03-MAR-1983; 83US-0471962.

(GETH) GENENTECH INC.

Gray AM, Ullrich A;

WPI; 1984-251909/41.

N-PSDB; N40034.

Human beta-nerve growth factor free from other proteins - obtd.

by recombinant DNA techniques for treating nerve damage

Example; Fig 6; 42pp; English.

The inventors claim human beta-nerve growth factor (NGF) free from other proteins of human origin. Also claimed are the DNA sequence encoding human beta-NGF operably linked with a DNA sequence capable of effecting its expression in a recombinant host cell; a replicable expression vector contg. the DNA; and host cells transformed with the vector. The plasmid claimed is plasmid ph-beta-NGF trip 1. Using the plasmid, larger amounts of pure beta-NGF are obtainable than by extrn. of natural materials, see e.g. EP--2139.

Sequence 307 AA;

Query Match 51.9%; Score 379.5; DB 5; Length 307;

Best Local Similarity 56.3%; Pred. No. 2.4e-35; Mismatches 26; Indels 15; Gaps 1;

Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps 1;

7 HRGEYSVCDSEHWNQNLQATDLRGNEVTVLPHVRINNWKOMFETTCRYSKPIGAP 66

195 hmgefsvcdsvwvwdkltatdtkgkvevylaevnlnsvfryftekcrasnpv--- 251

67 KPGQGVSGVAKAGTSSCRGIDNEHWNSTCTVHTFVRALTSYKNQIAMRFIRINACVCVL 126

252 -----esgcrjldskhwnsycctthfvtkaltdeqaafrifridtacvcl 299

127 SRNSWR 132

300 srkatr 305

RESULT 9

```

R45240 R45240 standard; Protein; 307 AA.
XX ID R45240:
XX AC
XX DT 20-JUN-1994 (first entry)
XX
XX Cloned mouse pre-pro nerve growth factor.
DE
XX Mature human: beta-nerve growth factor; mouse: pre-pro portion;
XX expression; NGF; hNGF; treatment; Alzheimer's Disease; murine.
XX OS
XX Mus musculus.
XX
XX Key Location/Qualifiers
XX FH 1..187
XX FT Peptide /note="signal peptide"
XX FT 188..307
XX FT Peptide /note="mature peptide"
XX
XX US5272063-A.
XX PD
XX 21-DEC-1993.
XX
XX 20-JUN-1989; 89US-0383118.
XX PF
XX 22-NOV-1988; 88US-0274878.
XX PR 20-JUL-1989; 89US-0383118.
XX
XX (SYNT ) SYNTEX USA INC.
XX PA
XX Baecker PA, Barnett JW, Burszlyn-Pettegrew H, Chan HW, Nguyen BR,
XX PI Ward C;
XX PI
XX WPI; 1993-413401/51.
XX DR N-PSDB; Q54282.
XX
XX Prodn. of active mature human beta-nerve growth factor in insect
XX PT cells - using baculovirus expression system, and potential use of
XX PT recombinant hNGF in treatment of Alzheimer's disease
XX PS
XX Disclosure; Fig 1; 23pp; English.
XX
XX The sequence is that of mouse pre-pro nerve growth factor
XX CC which was used in a method of producing biologically active
XX CC mature human beta-nerve growth factor in insect cells.
XX CC
XX Sequence 307 AA:
XX SQ
XX
XX Query Match 51.9%; Score 379.5; DB 14; Length 307;
XX Best Local Similarity 56.3%; Pred. No. 2.4e-35;
XX Matches 71; Conservative 14; Mismatches 26; Indels 15; Gaps
XX
XX 7 HNGEYVCDSEEHVGNLQATDTRCNEVTV.PHYRINNVYKMKWPEYTCRYSKRGAP 66
XX Db 195 hmgeysvcdseehvgnlqatdtrcnevtvlaevhinnsvirgyfctkcrasnpv--- 251
XX QY 67 KPGQGVSGVKACTSSCRGIDNEHMNSYCNVHTFVRLNLSYKNOIAMRFIRINACVYL 126
XX Db 252 -----esgorgidskhmsysctthtftvkaltdekgawrfiridtaacvyl 299
XX QY 127 SRNSMR 132
XX Db 300 srkrtr 305
XX
XX RESULT 10
XX ID R21864
XX AC R21864 standard; protein; 120 AA.
XX
XX R21864:
XX

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DT	10-JUN-1992	(first entry)
DE	Chimeric neurotrophic factor S2.	
KW	Human BDNF; brain derived neurotrophic factor; NGF;	
KW	neurotrophic growth factor; Alzheimer's disease; ageing;	
KW	peripheral neuropathies; Parkinson's disease; Huntington's chorea;	
KW	amyotrophic lateral sclerosis; nervous system disorders.	
OS	Homo sapiens.	
XX		
FH	Key	
FT	Peptide	
FT	1..9	
FT	/note="mouse NGF residues 1-9"	
FT	Peptide	
FT	10..22	
FT	/note="human BDNF residues 8-20"	
FT	Peptide	
FT	23..120	
FT	/note="mouse NGF residues 23-120"	
XX		
XX	WO9202620-A.	
XX		
XX	20-FEB-1992.	
XX		
XX	07-AUG-1991.	
XX	31MO-US05610.	
XX		
XX	08-AUG-1990.	
XX	90US-0564929.	
XX		
XX	(REG-) REGENERON PHARM INC.	
XX		
XX	Shooter EM, Suter U, Ip N, Squinto SP, Furth ME, Lindsay RM;	
XX	Yancopoulos GD;	
XX		
XX	WPI, 1992-080074/10.	
XX		
XX	New chimeric neurotrophic factors - useful in treating nervous	
XX	conditions caused by trauma, surgery, ischaemia, infection,	
XX	metabolic diseases, nutritional deficiency, etc.	
XX		
XX	Claim 25; Fig 10; 114pp; English.	
XX		
XX	The sequence is that of a chimeric neurotrophic factor (NF) S2 which	
XX	comprises the mouse neurotrophic growth factor (NGF) residues 1-9,	
XX	human brain derived growth factor (hBDNF) residues 8-20 and mouse NGF	
XX	residues 23-120. It may provide the activity of 2 NFs in a single mol.	
XX	or may serve as a superagonist of an endogenous NF thereby enabling an	
XX	increased biological response at lower doses. It may also be useful in	
XX	targeting an active cpd. to cells responsive to NF. The design of	
XX	chimeric NFs, such as S2, which retain specific biological activity	
XX	but which are directed to a subset of factor-responsive cells may	
XX	enable treatment of neurological disorders but avoid the complications	
XX	of more widespread activity of parent mols. It may be used in the	
XX	treatment to eliminate diseased cells, e.g. virus infected cells or	
XX	tumours of nervous system origin. It may also be used to treat patients	
XX	whose nervous system has been damaged by trauma, surgery, ischaemia,	
XX	infection (e.g. polio or AIDS), metabolic disease, nutritional	
XX	deficiency (e.g. polio or AIDS), toxic agents. Also to treat e.g. Alzheimer's	
XX	disease, ageing, peripheral neuropathies, Parkinson's disease,	
XX	Huntington's chorea or amyotrophic lateral sclerosis. S2 or antibodies	
XX	to it can also be used in the diagnosis and study of nervous system	
XX	disorders. See also R21851-R21874 and Q22080-Q22131.	
XX		
XX	Sequence 120 AA;	
XX		
XX	Query Match 51.6%; Score 377.5; DB 13; Length 120;	
XX	Best Local Similarity 56.3%; Fred. No. 1.2e-35;	
XX	Matches 71; Conservative 13; Mismatches 27; Indels 15; Gaps 1.	
QY	7 HRGYSVCDSEHHWQATDLDGNGVTVTPHRRINNWKQKQEVETTCVSPIDAP 66	
Db	8 Hmgelsvcds:sewgydktattdldgkyevtrlaeennimstrgyffetkcaasnpv--- 64	
QY	67 KPGQGVSVKAGTSSCRIDNEHNNSTYTNVHTFVRLATSTYKNQIAAMFIRINAACVCL 126	

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Db      65 -----esgorgidskmsycttthtvtkaltidexgaawfiridacvcl 112
QY      127 SRNSMR 132
      113 srkatr 118

RESULT 11
P90133
ID      P90133 standard; protein: 119 AA.
AC      P90133;
DE      01-NOV-1989 (first entry)
DE      Human nerve growth factor derivative where amino acids 37 and
DE      39 are both Thr.
DE      Human nerve growth factor; fusion protein; growth factor;
DE      recombinant vector.
OS      Homo sapiens (Human).
XX      JP01144981-A.
XX      07-JUN-1989.
XX      02-DEC-1987; 87JP-0304937.
XX      02-DEC-1987; 87JP-0304937.
XX      (WAKU) WAKUNGA SEIYAKU KK.
XX      WPI: 1989-209284/29.
XX      DR N-PSDB; N90269, N90273.
XX      Recombinant vector contg. fusion protein
XX      consisting of human growth hormone or deriv. ligated
XX      to foreign protein, for stability and high yield.
XX      Disclosure; fig 8; 19pp; Japanese.
XX      PS
XX      Human nerve growth factor deriv. (see N90273), where
XX      amino acids 37 and 39 are both Thr. The invention consists of a
XX      vector contg. a fusion protein which is formed by ligating,
XX      downstream of a promoter, human growth hormone or a deriv.
XX      (see N90269) and a foreign protein. Stability of the vector
XX      in the host is greatly increased so the protein
XX      yield is higher.
XX      Sequence 119 AA;

Query Match      51.5%; Score 376.5; DB 10; Length 119;
Best Local Similarity 55.0%; Pred. No. 1.5e-35;
Matches 72; Conservative 14; Mismatches 30; Indels 15; Gaps 1;

QY      2 ANDPLARGEYVCDEEHVGNLTQATDLRGNEVTLPVHRINNVYKKOMFETTCRVSK 61
      4 shplrhgefsvcsvsvvgdkttatdikgrevtlgsvnnnsyfkgyffetkcrdpn 63
QY      62 PIGAKRPGQGVSGVAAAGTSSCGINEHNSYCTNVHTFYRLTSTYKKNQIANREFIRINA 121
      64 py-----dsgrgidskmsycttthtvtkaltidexgaawfiridta 108
Db      122 CVCVLSRNSMR 132
      109 CVCVLSRNSMR 119
RESULT 12
R21873

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```

ID      R21873 standard; Protein: 120 AA.
XX      R21873;
AC      R21873;
DE      10-JUN-1992 (first entry)
DE      Chimeric neurotrophic factor S11.
DE      Human BDNF; brain derived neurotrophic factor; NGF;
DE      neurotrophic growth factor; Alzheimer's disease; ageing;
DE      peripheral neuropathies; Parkinson's disease; Huntington's chorea;
DE      amyotrophic lateral sclerosis; nervous system disorders.
OS      Homo sapiens.
XX      Key
XX      Location/Qualifiers
XX      FT Peptide
XX      1..101
XX      /note="mouse NGF residues 1-101"
XX      FT Peptide
XX      102..110
XX      /note="human BDNF residues 103-111"
XX      FT Peptide
XX      111..120
XX      /note="mouse NGF residues 111-120"
XX      WO9202620-A.
XX      20-FEB-1992.
XX      07-AUG-1991; 91WO-US05610.
XX      08-AUG-1990; 90US-0564929.
XX      (REGG-) REGENERON PHARM INC.
XX      Shooter EM, Suter U, Ip N, Squinto SP, Furth ME, Lindsay RM;
XX      Yancopoulos GB;
XX      WPI: 1992-080074/10.
XX      New chimeric neurotrophic factors - useful in treating nervous
XX      conditions caused by trauma, surgery, ischaemia, infection,
XX      metabolic diseases, nutritional deficiency, etc.
XX      Claim 34; Fig 10; 114pp; English.
XX      PS
XX      The sequence is that of a chimeric neurotrophic factor (NF) S11 which
XX      comprises the mouse neurotrophic growth factor (NGF) residues 1-101,
XX      human brain derived growth factor (hBDNF) residues 103-111 and mouse
XX      residues 111-120. It may provide the activity of 2 NFs in a single mol.
XX      or may serve as a superagonist of an endogenous NF thereby enabling an
XX      increased biological response at lower doses. It may also be useful in
XX      targeting an active cpd. to cells responsive to NF. The design of
XX      chimeric NFs, such as S11, which retain specific biological activity
XX      but which are directed to a subset of factor-responsive cells may
XX      enable treatment of neurological disorders but avoid the complications
XX      of more widespread activity of parent mols. It may be used in the
XX      treatment to eliminate diseased cells, e.g. virus infected cells or
XX      tumours of nervous system origin. It may also be used to treat patients
XX      whose nervous system has been damaged by trauma, surgery, ischaemia,
XX      infection (e.g. polio or AIDS), metabolic disease, nutritional
XX      deficiency, malignancy or toxic agents. Also to treat e.g. Alzheimer's
XX      disease, ageing, peripheral neuropathies, Parkinson's disease,
XX      Huntington's chorea or amyotrophic lateral sclerosis. S11 or antibodies
XX      to it can also be used in the diagnosis and study of nervous system
XX      disorders. See also R21851-R21874 and Q22080-Q22131.
XX      Sequence 120 AA;

Query Match      51.5%; Score 376.5; DB 13; Length 120;
Best Local Similarity 55.6%; Pred. No. 1.6e-35;
Matches 70; Conservative 15; Mismatches 26; Indels 15; Gaps 1;

QY      7 HNGEYVCDEEHVGNLTQATDLRGNEVTLPVHRINNVYKKOMFETTCRVSKPIGAP 66

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Db 8 hmgefsvcdsvswvgdkltatdtkgkvevlylaevnlnsvfrgyfletckrasnpv--- 64
 QY 67 KPGQVSGVAKGTSSCRGIDNEHNSYCTNHTFVRALTSYKNOIAMPRIRINACVYL 126
 CC 65 -----esgcrgldskhmsycttthtftvkaltdckgaawfrildscvcl 112
 Db 127 SRNSMR 132
 Db 113 strktr 118

RESULT 13
 R21866
 ID R21866 standard; Protein; 120 AA.
 AC R21866;
 XX 10-JUN-1992 (first entry)
 XX Chimeric neurotrophic factor S4.
 KW Human BDNF; brain derived neurotrophic factor; NGF;
 KW neurotrophic growth factor; Alzheimer's disease; aging;
 KW peripheral neuropathies; Parkinson's disease; Huntington's chorea;
 KW amyotrophic lateral sclerosis; nervous system disorders.
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FT Peptide 1..33
 FT /note= "mouse NGF residues 1-33"
 FT Peptide 34..42
 FT /note= "human BDNF residues 34-42"
 FT Peptide 43..120
 FT /note= "mouse NGF residues 43-120"
 XX
 XX W09202620-A.
 XX 20-FEB-1992.
 XX 07-AUG-1991; 91WO-US05610.
 XX 08-AUG-1990; 90US-0564929.
 XX (REG-) REGENERON PHARM INC.
 XX Shooter EM, Suter U, Ip N, Squinto SP, Furch ME, Lindsay RM;
 XX Yancopoulos GD;
 XX WPI; 1992-080074/10.
 XX
 XX New chimeric neurotrophic factors - useful in treating nervous
 XX conditions caused by trauma, surgery, ischemia, infection,
 XX metabolic diseases, nutritional deficiency, etc.
 XX
 XX Claim 27; Fig 10; 114pp; English.

The sequence is that of a chimeric neurotrophic factor (NF) S4 which
 CC comprises the mouse neurotrophic growth factor (NGF) residues 1-33,
 CC human brain derived growth factor (hBNDF) residues 34-42 and mouse NGF
 CC residues 43-120. It may provide the activity of 2 NFs in a single mol.
 CC or may serve as a superagonist of an endogenous NF thereby enabling in
 CC targeting an active cpd. to cells responsive to NF. The design of
 CC chimeric NFs, such as S4, which retain specific biological activity
 CC but which are directed to a subset of factor-responsive cells may
 CC enable treatment of neurological disorders but avoid the complications
 CC of more widespread activity of parent mols. It may be used in the
 CC treatment to eliminate diseased cells, e.g. virus infected cells or
 CC tumours of nervous system origin. It may also be used to treat patients
 CC whose nervous system has been damaged by trauma, surgery, ischemia,
 CC infection (e.g. polio or AIDS), metabolic disease, nutritional

CC deficiency, malignancy or toxic agents. Also to treat e.g. Alzheimer's
 CC disease, ageing, peripheral neuropathies, Parkinson's disease,
 CC Huntington's chorea or amyotrophic lateral sclerosis. S4 or antibodies
 CC to it can also be used in the diagnosis and study of nervous system
 CC disorders. See also R21851-R21874 and Q22080-Q22131.
 XX
 SQ Sequence 120 AA;

Query Match 51.0%; Score 372.5; DB 13; Length 120;
 Best Local Similarity 55.6%; Fred. No. 4.4e-35;
 Matches 70; Conservative 14; Mismatches 27; Indels 15; Gaps 1;

QY 7 HRGEYSVCDSEEHVGNLTQATDLRGNEVTVLPHRINNVYKKMKYETTCRYSKFIGAP 66
 Db 8 hmgefsvcdsvswvgdkltatdtkgkvevlylaevnlnsvfrgyfletckrasnpv--- 64
 QY 67 KPGQVSGVAKGTSSCRGIDNEHNSYCTNHTFVRALTSYKNOIAMPRIRINACVYL 126
 Db 65 -----esgcrgldskhmsycttthtftvkaltdckgaawfrildscvcl 112
 QY 127 SRNSMR 132
 Db 113 strktr 118

RESULT 14
 R21870
 ID R21870 standard; Protein; 120 AA.
 AC R21870;
 XX 10-JUN-1992 (first entry)
 XX Chimeric neurotrophic factor S8.
 DE
 KW Human BDNF; brain derived neurotrophic factor; NGF;
 KW neurotrophic growth factor; Alzheimer's disease; aging;
 KW peripheral neuropathies; Parkinson's disease; Huntington's chorea;
 KW amyotrophic lateral sclerosis; nervous system disorders.
 OS Homo sapiens.
 XX
 XX Key Location/Qualifiers
 FT Peptide 1..68
 FT /note= "mouse NGF residues 1-68"
 FT Peptide 69..80
 FT /note= "human BDNF residues 69-80"
 FT Peptide 81..120
 FT /note= "mouse NGF residues 81-120"
 XX
 XX W09202620-A.
 XX 20-FEB-1992.
 XX 07-AUG-1991; 91WO-US05610.
 XX 08-AUG-1990; 90US-0564929.
 XX (REG-) REGENERON PHARM INC.
 XX Shooter EM, Suter U, Ip N, Squinto SP, Furch ME, Lindsay RM;
 XX Yancopoulos GD;
 XX WPI; 1992-080074/10.
 XX
 XX New chimeric neurotrophic factors - useful in treating nervous
 XX conditions caused by trauma, surgery, ischemia, infection,
 XX metabolic diseases, nutritional deficiency, etc.
 XX
 XX Claim 31; Fig 10; 114pp; English.

The sequence is that of a chimeric neurotrophic factor (NF) S8 which

comprised the mouse neurotrophic growth factor (NGF) residues 1-68, human brain derived growth factor (hBNGF) residues 69-80 and mouse NGF residues 81-120. It may provide the activity of 2 nFps in a single mol. or may serve as a superagonist of an endogenous NF thereby enabling an increased biological response at lower doses. It may also be useful in targeting an active cpd. to cells responsive to NF. The design of chimeric NFs, such as S8, which retain specific biological activity but which are directed to a subset of factor-responsive cells may enable treatment of neurological disorders but avoid the complications of more widespread activity of parent mols. It may be used in the treatment to eliminate diseased cells, e.g. virus infected cells or tumours of nervous system origin. It may also be used to treat patients whose nervous system has been damaged by trauma, surgery, ischaemia, infection (e.g. polio or AIDS), metabolic disease, nutritional deficiency, malignancy or toxic agents. Also to treat e.g. Alzheimer's disease, ageing, peripheral neuropathies, Parkinson's disease, Huntington's chorea or amyotrophic lateral sclerosis. S8 or antibodies to it can also be used in the diagnosis and study of nervous system disorders. See also R21851-R21877 and Q22080-Q22131.

Sequence 120 AA;

Query Match	50.5%	Score	369.5	DB	13	Length	120
Best Local Similarity	5.6%	Pred. No.	9.7e-35				
Matches	70	Conservative	12	Mismatches	29	Indels	15
						Gaps	1

Matches	70;	Conservative	12;	Mismatches	29;	Indels	15;	Gaps	1;
---------	-----	--------------	-----	------------	-----	--------	-----	------	----

QY 7 HRGELSVCDSEHHWGNLTQATDLRGNEVYLPVPHVRINNVRKQMFYEITCRVSRPIGAP 66
| ||| |||| | ||| : ||| | : ||| || | :
Db 8 hmgfsvcdsvvwmvgdkttatidkqkevevlaevninsvfryfflekcrasnpv--- 64

```

QY 67 KPGGVSQVYAGTSSRCRGIDNEHMNSICTNVHFTVRALTSYKNQJAMRFITLNACVCVL 126
      | |||| |||| || ||||:||||: | |||||: |||||
Db 65 -----esgcrigidrhwmsqcttthtftvkalttdckgaawrfiirdtaacvcl 112

```

QY	127	SRNSWR	132
Db	113	srkatr	118

RESULT 15

ID P91034 standard; Protein; 118 AA.

AC P91034;

20-JUL-2000 (revised)
14-DEC-1989 (first entry).

Human nerve growth factor segment.

KW Human nerve growth factor; fusion protein; thrombin;
KW geriatric dementia; nervous disorders; human growth hormone

OS Homo sapiens

PN EP329175-A.

PD 23-AUG-1989.

PF 17-FEB-1989; 89EP-0102795.

PR 19-FEB-1988; 88JP-0035042.

PA (TOYU) TOSOH CORP .

PI Ohtsuka E;
YY

- DR WPI; 1989-243092/34
- XX

PT - New human nerve growth factor gene encoding fusion protein
- having cleavage site for thrombin, useful for treating

PT geriatric dementia, etc.

XX Claim 5; Page 16; 38pp; English

CC Human nerve growth factor (hNGF) segment (see N90577). The patent
CC describes a fusion protein formed from nerve growth factor and human
CC growth hormone and including a thrombin recognition sequence such that
CC hNGF is released by incubation with thrombin. hNGF controls
CC geriatric dementia and nervous disorders.
CC (Revised entry issued to correct the sequence analysis breakdown.)
CC

Sequence	118 AA;
----------	---------

Query Match	50.4%;	Score	368.5;	DB	10;	Length	118;
Best Local Similarity	54.2%;	Pred. No.	1.2e-34;				
Matches	71;	Conservative	13;	Mismatches	32;	Indels	15;
						Gaps	1

```

QY      2 ANDLHGEISVCDSEHHWGNLTQATDLRGNEVTVLPHRINNVYKQKMFYEITCRVSK 61
      ::  ||||:||||  ||:  | |||::|  ||  | |||  | ||: ||  ||
Db      3 shp1fhrgeisvcdsvswvgdktctadikgkeymnlgevninnsfvkfkyfctkordn 62

```

Qy 62 PIGAPKPGGCVSGVAKAGTSSCRGIDNEIWNISYCTNVHTFVALRTISKNOJAMRFIRINAA 121
 | : | ||||:|||||| | ||||: | | ||||| : |
 Db 63 pV-----dsgrgidskwnsycttthfvaltmngykgaaarfiridta 107

```
QY      122 CVCVLSRNSWR 132Z
          ||||| : |
Db      108 CVCVLSrkavr 118Z
```

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Mon Oct 30 10:20:06 2000

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